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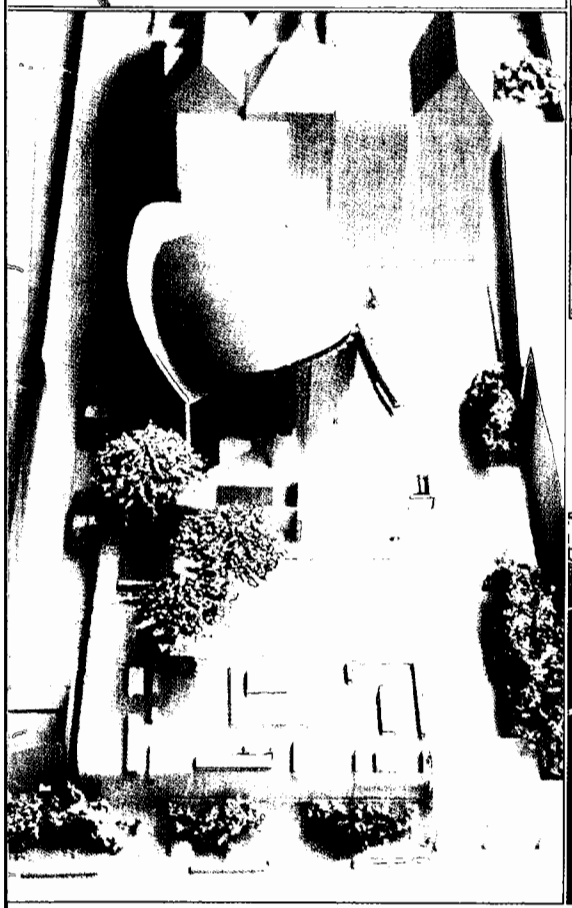
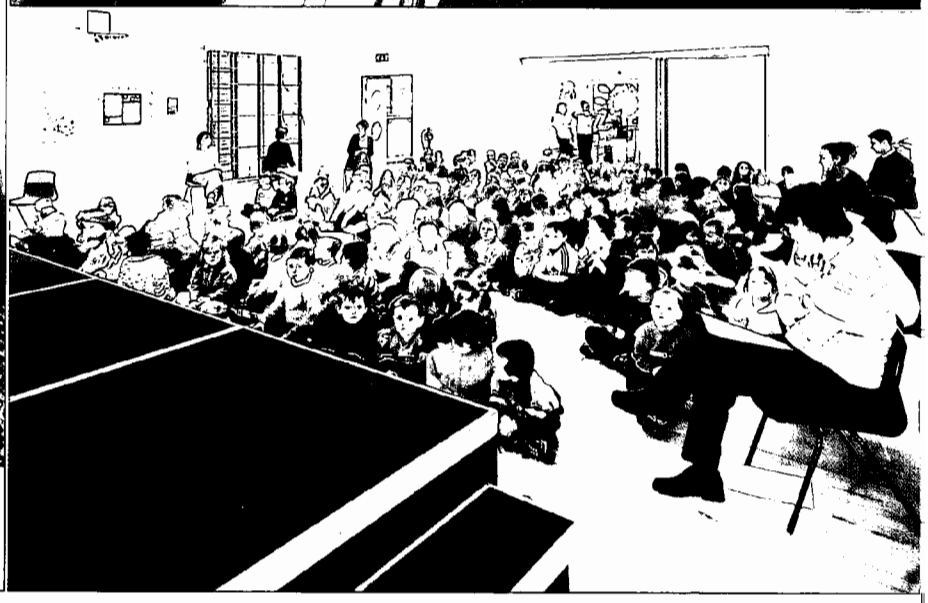
ABSTRACT

This guide offers general design proposal guidance for sports and arts spaces in England's primary schools, where these types of spaces can be used by both school and community members. The guide also presents case studies to provide examples of good practice. The primary shared space for sports and arts activities is the multipurpose main hall, and detailed specifications are covered for this space. The guide also discusses ways to deal with dual use design challenges in order to promote higher design quality and allow for innovation. Practical everyday design considerations also addressed include security, accessibility for disabled persons, health and safety, and environmental issues. There is also advice for designing dual use spaces that support and supplement the key areas and enhance the quality of experience for all users. (Contains 26 references.) (GR)





Designing space for sports and arts

Design guidelines for sports and arts facilities in primary schools for dual school and community use

DfEE
Department for Education and Employment

SPORT ENGLAND

THE ARTS COUNCIL OF ENGLAND

contents

Introduction

Space for Sports and Arts is a new initiative aimed at improving facilities in primary schools, for dual school and community use, in the areas of greatest need. It will help tackle the situation, highlighted by Ofsted, whereby around 2,700 primary schools (14 per cent of the total) have poor facilities for physical education, whilst 2,300 (12 per cent) do not even have a space large enough for dance and movement. At the same time it will help communities which have little or no provision for sports and arts activities.

There are over 19,000 primary schools in England and most are conveniently located to serve the educational needs of local children. This makes them ideally placed to meet other community needs for sports, arts and social facilities and to provide learning opportunities, access to the National Grid for Learning and childcare. Moreover, in impoverished areas, ranging from run-down urban housing estates to areas of rural deprivation, schools are often seen as much more welcoming places than other public buildings.

Governing bodies of all maintained schools need to consider making school premises available for community use outside school hours. Involvement with the wider community and support from community groups and parents can increase children's motivation, expectations and achievements. Local people can see a school which is active in their community being an essential element in the regeneration of their neighbourhoods.

The Space for Sports and Arts initiative involves an innovative collaboration between Government – the Department for Culture, Media and Sport and the Department for Education and Employment – and three bodies responsible for distributing National Lottery grants – Sport England, the Arts Council of England and the New Opportunities Fund. Initial funding is £130 million, £75 million from the Government's Capital Modernisation Fund and £55 million from the National Lottery. This is intended to cover some 250 to 300 projects. Funding is available in 2000-01 to 2001-02 for projects located in primary schools and serving local communities.

This guidance is aimed at local education authorities (LEAs), school governing bodies and design teams, and offers general design guidance for proposals for sports and arts spaces in primary schools. It should serve as a checklist and will be useful to refer to at the project briefing stage. Case studies are used to provide examples of good practice. Decisions on specific details should be made by individual schools and architects. References to additional guidance may be found on page 20.

The guidance included here covers a wide range of facilities, from the key activity areas such as halls, down to foyers and serving spaces. The design of facilities for use by both school and community, and for sports and arts, calls for careful thought, particularly as key elements must be designed for young children. Effective compromise is possible, but must be planned for. The main shared space for sports and arts activities is the hall and section three covers detailed specifications for this space. As the single largest space, a multi-purpose hall will directly influence the need for, and size of, any ancillary spaces and will therefore have the greatest effect on project costs.

Each scheme must be tailored to meet local needs for some or all of the activities covered in this guidance. The design brief requires an LEA to assess the activities to be accommodated in the context of the school's and community's own requirements, the available budget and future revenue expectations. It is expected that proposals will have some mix of arts and sports facilities, with early years education, childcare and advanced information communications technology (ICT) provision included according to the primary school's aspirations and requirements. Innovation is always welcomed and this report is not intended to be prescriptive, but to provide pointers towards standards and good practice.

01 Design issues

Aiming for quality design and innovation

The design of multi-purpose spaces raises challenges that require imagination and a well thought out brief to produce facilities that best work with and enhance the existing school.

Design criteria

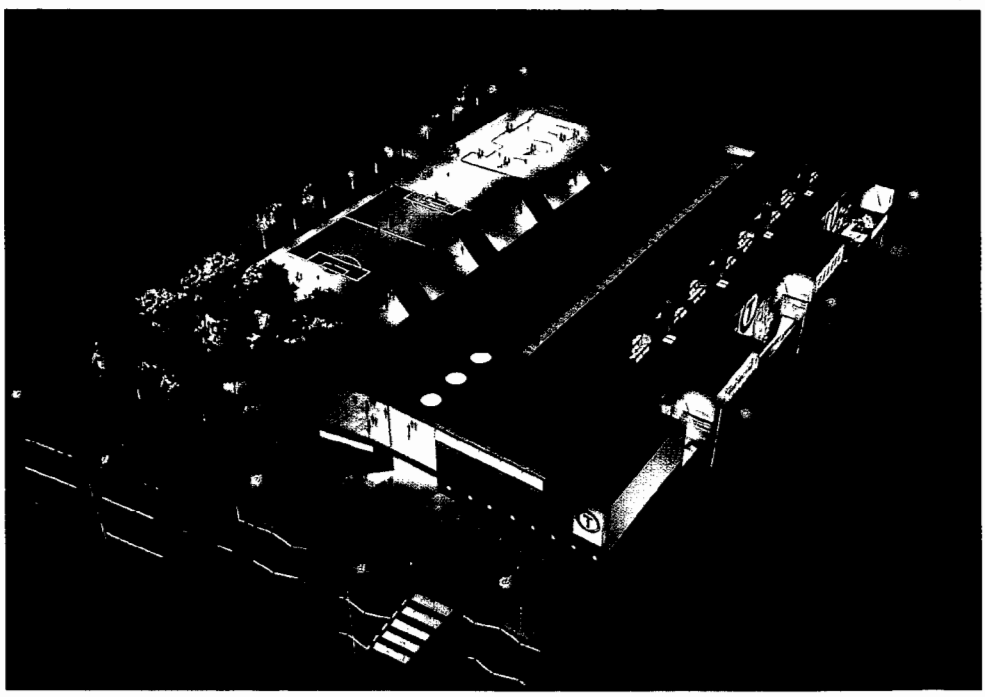
This initiative creates many design challenges. Dual education and community use necessitates a substantial increase in the specification of standard school facilities. Sports and arts use will affect the size of individual spaces, such as the hall, and the need for additional spaces such as changing rooms, meeting areas and adult toilets. There may also be other community uses for the additional facilities – playgroups, clubs, societies, concerts, discos, dance classes, films, and receptions.

With dual use the major challenge is how to design spaces which are attractive and stimulating places for children, while still being suitable for use by adults. Many spaces must be multi-functional for both sets of users. For example, a hall may need to function as a dining room and gymnasium, but also as a space for ball games, or as a theatre, in which apparatus such as wall bars will be obstructive. Such problems can be overcome if multiple uses are planned for.

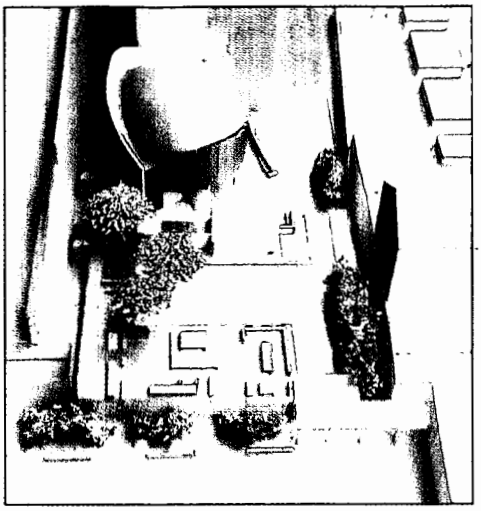
The challenges are greater with primary schools than secondary schools because of the potential conflicts in scale. Small children have very different perspectives from those of teenagers or adults. While different needs for furniture and equipment can be met by providing additional items, this is not a practical solution for the building itself. Spaces for sports and arts need to be designed so that they appeal to, and function for, both children and adults without requiring costly and time-consuming alterations between uses.

Schools are often the most distinguished buildings in a neighbourhood, but many are not. If schools are to function well as the focal points for communities, they need to be attractive to children and adults alike. Projects should be seen as opportunities to raise the status of the schools through imaginative design.

With so many elements to incorporate, it is important not to lose sight of the quality of the design and construction. The materials and site need to be used effectively and imaginatively. Good quality construction, which addresses important issues such as sustainability and acoustics, is essential if a



TULSE HILL PRIMARY SCHOOL, ALLFORD HALL MONAGHAN MORRIS
This school has been designed to encourage community use by night as well as by day. It has a number of outdoor pitches.



ABOVE LEFT AND RIGHT: NEW NORTH LAMBETH, PENOYRE AND PRASAD
The new community facilities have been designed to integrate with the existing school buildings – although very different in style.

building is to perform well and efficiently. Some elements have a direct effect on running costs, such as insulation and thermal performance. Others, such as the aesthetics of a building, have less tangible outcomes. Making the experience of a building positive is one way to ensure that it will be well-used and well-treated. People are more likely to value a good quality environment.

Design quality is an important objective in this initiative and representatives from the Commission for Architecture and the Built Environment will be viewing a sample of schemes submitted to encourage this to be addressed.

The brief

A detailed design brief necessitates a thorough assessment of the needs and activities to be accommodated in the context of a school's own requirements, those of the community it will serve and the available budget. The aim should be to define the building in terms of its function and capacity, and then determine the amount and type of ancillary accommodation needed to support it. Factors to be considered and determined in developing the brief will include:

- the type and scale of sports and arts activities to be accommodated;
- the number of pupils that will use it at any one time;
- the potential audience – type and numbers;
- the capacity, size and proportions of a hall;
- whether some activities planned can be accommodated and programmed into a single space;
- stage, platform and seating types and formats;
- the maximum number of performers/players and the dressing and changing space required to accommodate them;
- the amount of foyer and front of house space required;
- the need to provide for art forms such as visual and applied arts, multi-media and music;
- signage and orientation and circulation routes through new and existing buildings;
- the amount of storage space needed for school and community equipment;
- environmental conditions required;
- opportunities for public art, both inside and outside the school and community buildings;
- the opportunities for sport outside the buildings;
- fire exits, escape routes and evacuation signage;
- disabled access throughout the building.

Siting buildings

The layout of a school site needs to be looked at afresh to see how suitable it is for community use, and how additional accommodation can best be located. If the new facilities are to be well used by the school, they should ideally be physically integrated within the site to allow easy access by pupils and staff, and to encourage a sense of ownership. At the same time, community users need to be able to access them without having to go through areas which should normally be the sole preserve of the school, such as classrooms and staff areas. This is essential if facilities are to be used by the community during normal school hours.

Consideration should be given to how a school's daytime access control and visitor monitoring system can be adapted for community use out of school hours. Which entrances are open and how they are controlled will have an impact on this. Organisation is simplified if all facilities can be accessed through one entrance and reception area, and can share ancillary services such as toilets. However, when parts of the building are open to the community during the day, it may be preferable to provide a separate entrance with car parking nearby, if this is possible and affordable.

The siting of a new building can help enhance the presence of a school. Whether approached from the street or from a public space, good visibility into the foyer or reception area can do much to convey a sense of vitality within, and also allow staff to supervise and control access into the building. The effect of additional vehicles on existing car parking provision and traffic circulation should be considered, together with fire engine access. Pedestrian routes may need to be upgraded. A school should be welcoming, so it is important to consider the ease of orientation around a site for all users and whether extra signposting is needed.

Thought should be given to introducing spaces for public art, display of children's work, or for external performances.

02 Primary schools

Designing to extend existing school facilities

Primary schools will have some facilities for sports and arts. These are unlikely to be adequate for adult community use but should be incorporated into new developments.

MARKFIELD COMMUNITY RECREATION CENTRE
Guidelines for halls sizes are based on a class of 30 doing PE. This hall has a sprung floor which is ideal for sports use.

Current guidance

The current non-statutory guidelines for primary schools are laid out in Building Bulletin 82, *Area Guidelines for Schools*. The gross area per pupil ratio is calculated on the basis of best practice and value for money in terms of both capital costs and maintenance and upkeep costs. The basic formula for teaching areas is 1.8m² per pupil excluding the hall and library. A more generous, but still feasible, allowance would be 2.1m². Figure 2.1 shows the range of area per pupil that is considered to be good value, though the circumstances of each school will be different. The suggested split between teaching and non-teaching areas is 60:40. However, additional community use of a site is likely to alter the ratio, increasing the amount of non-teaching areas.

Normal accommodation for sports and arts

Accommodation provided for sports and arts spaces can vary greatly. Specialist practical areas may be provided for groups of six to eight pupils and may be adaptable to community arts use. Larger primary schools may be provided with studios for music, drama, movement and dance, to supplement the main hall.

Main hall

Guidelines on standard school hall sizes are based on the requirements of a class of 30 doing physical education, with a minimum space of 120m² needed for infants and 140m² for juniors. But the use of a hall in larger schools for whole-school assemblies will require a larger area, as shown in figure 2.2. Community sports use requires larger hall sizes, the suggested minimum being 180m². This would allow for a school assembly of around 500 pupils.

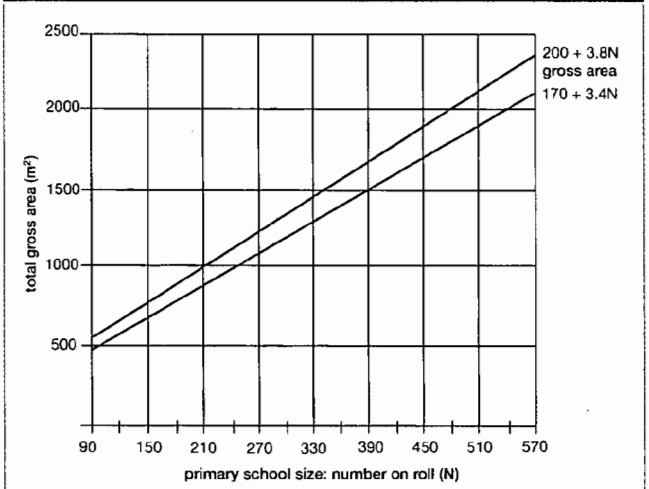
Multi-games areas

For external hard-surfaced games courts the standard surface is macadam. Other artificial surfaces may be preferable, especially for use after rain and for more intensive use.

Dual use of primary school spaces

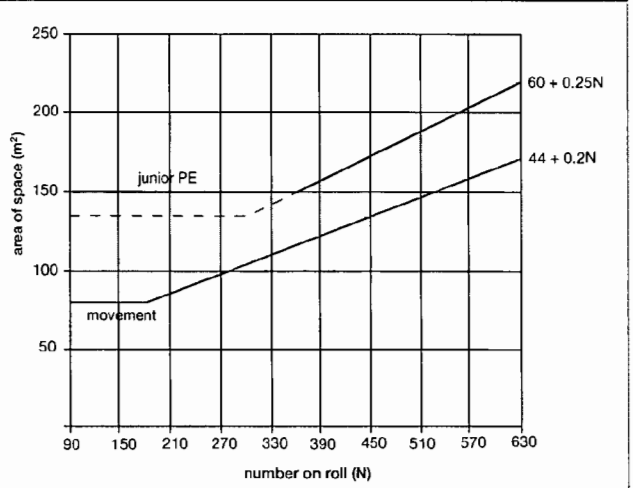
Standard primary school facilities may prove inadequate for community use, especially for adult users. Space requirements are very different for children and adults, for example for court sizes. Halls will also need to be re-assessed if they are to cope with both sports and arts usage. The size of equipment, which is likely to be designed especially

FIGURE 2.1: RANGE OF AREAS CONSIDERED TO BE VALUE FOR MONEY FOR SCHOOL USE



Source: Building Bulletin 82, *Area Guidelines for Schools*

FIGURE 2.2: MINIMUM AREA REQUIRED FOR A HALL FOR PE AND ASSEMBLY, PER NUMBER OF PUPILS ON SCHOOL ROLL



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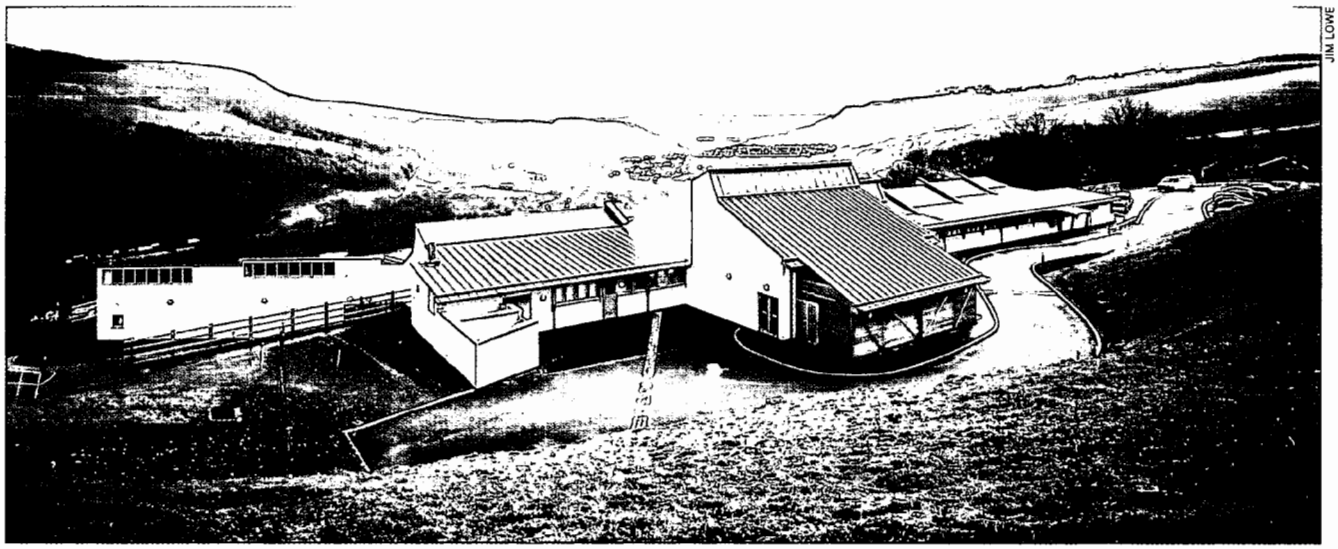
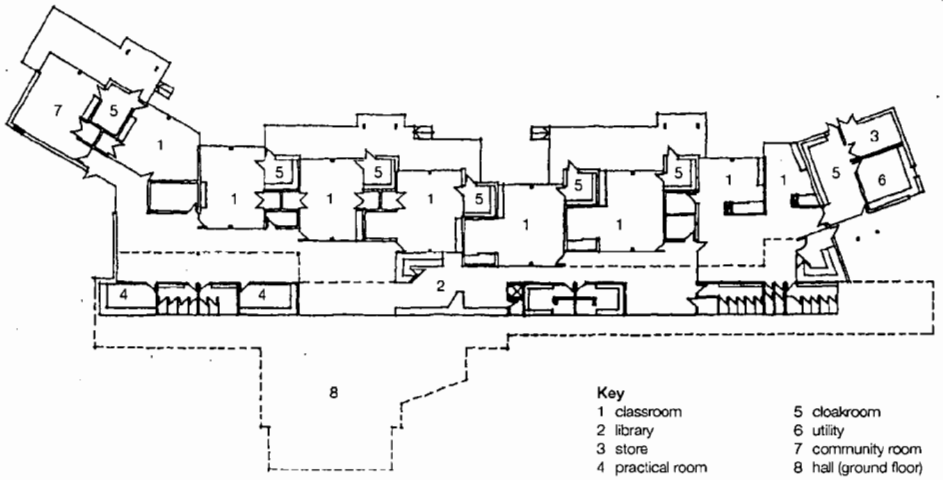


JIM LOWE



ABOVE: PERTHCELYN COMMUNITY PRIMARY SCHOOL, RHONDDA CYNON TAFF PROPERTY CONSULTANCY
In remote, under-invested areas primary schools can offer sports and arts facilities to benefit a wide range of people in the community.

LEFT: **Shared community and children's areas can work together successfully in a well-planned school. Practical rooms are shared and there is one dedicated community room.**

for children, can also create difficulties in scale for general community use.

However, the principal problem is likely to be the lack of supporting spaces such as adequate storage, changing rooms and adult toilets.

Community and extra-curricular use

Much of this publication deals with design guidance for integrating adult members of the community into primary schools, but community use also includes use by children of all ages.

Study support

Study support before and after school and during holidays embraces a wide range of voluntary learning activities for young people. Offering study support involves making resources available to be used in a more informal way than is possible within school time. These resources might include play equipment and ICT facilities, including access to the National Grid for Learning. Music, art and drama resources may include audio and video recording equipment. Sports and physical education facilities may also be required.

Early years education and childcare

Schools can be ideal sites for community childcare provision as part of an overall strategy. They are designed for children and offer a safe environment which parents are likely to trust. A school may wish to make its facilities available to groups to offer childcare before and after school, and also to groups that cater for pre-school children, such as nurseries and playgroups.

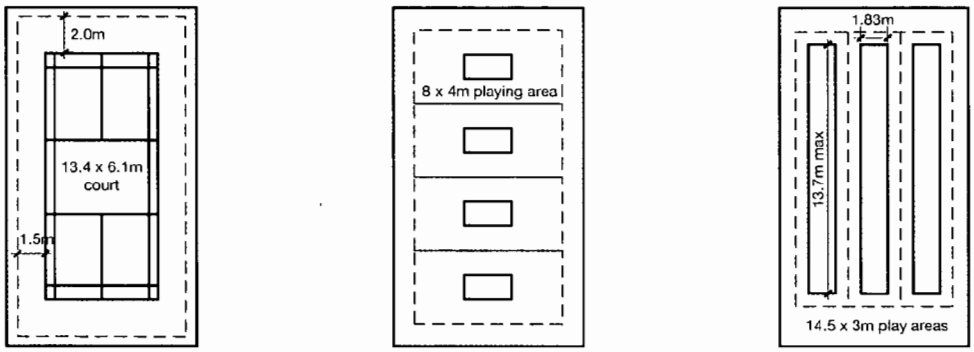
Designs must take account of the requirements of young children, especially in terms of safety. Dedicated playrooms should have an identifiable place for each activity and its resources. The Children Act 1989 recommends an area of 2.3m² per child (excluding storage, toilets and staff areas) to provide a good range of activities. For more information see the DfEE's *Designing for 4 to 5 year olds*.

03 Multi-purpose main hall

Designing a shared space for sports and arts

The hall design needs to balance various requirements, accommodating general school uses as well as sports and arts activities, including performances.

A main hall with dimensions based around a single badminton court can accommodate a variety of popular sports.



BADMINTON/ SHORT TENNIS

TABLE TENNIS – 4 TABLES

SHORT MAT BOWLS – 3 CARPETS

Size

A multi-purpose hall for combined community sports and arts is the most complex space to design if it is to function properly for both uses. The minimum recommended space for educational use needs to be increased in size and more storage space will be needed for sports and arts equipment, including musical instruments. As a general guide, the dimensions of the hall should be at least 18m long by 10m wide, and the minimum clear height should be 6.1m over the badminton court.

A hall of this size can accommodate badminton and many other sports activities. It will also hold an audience of up to 190 for drama and other performances. For sports and arts use, good acoustics are essential. For performance, good sightlines and flexible seating are critical. Lighting, heating and ventilation should be appropriate to the needs of a seated audience.

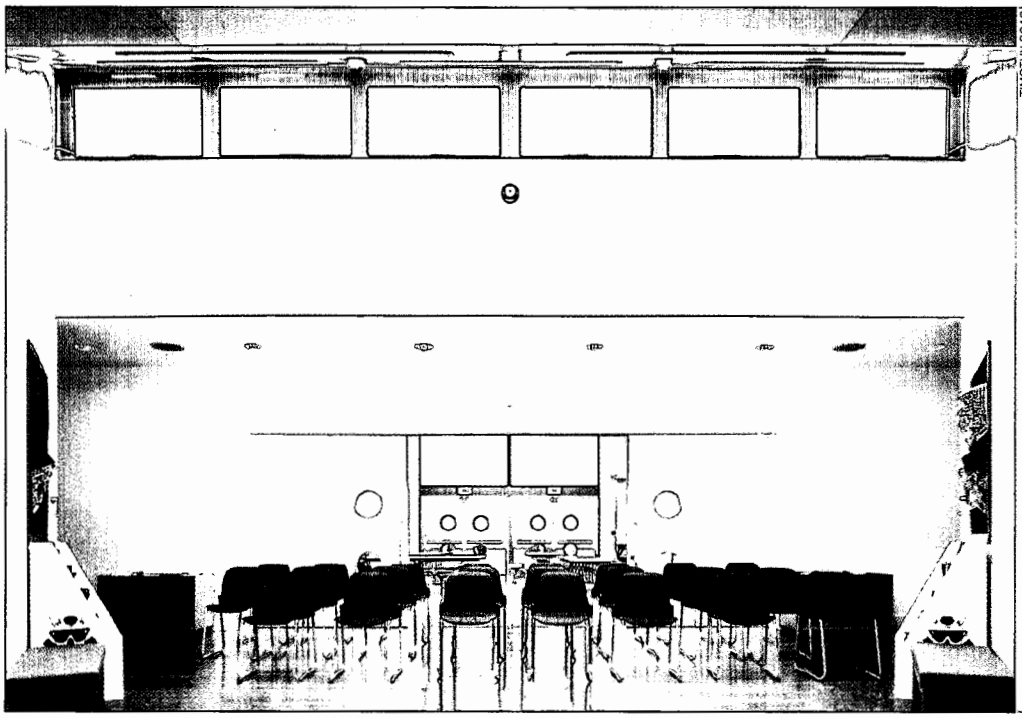
Stage

A fixed stage may prove too inflexible if the hall is to combine sports and arts use. It is likely to require an increase in hall length to avoid compromising sports activities. However, it may be possible to screen off the stage with sliding or folding screens when it is

TABLE 3.1: HALL SIZE AND SPORTS CAPACITY

SPORT	PRIMARY SCHOOL HALL 10m by 14m by 4.5m	1 BADMINTON COURT HALL 10m by 18m by 6.1m	2 BADMINTON COURT HALL 17m by 18m by 6.1-7.6m
Badminton	not applicable	practice	recreation/practice
Table tennis	recreation/practice	county +/recreation/practice	county +/recreation/practice
Gymnastics	practice	practice	practice
Judo	practice	practice	county +/recreation/practice
Karate	practice	recreation/practice	county +/recreation/practice
Dance and movement	–	–	recreation/practice
Fencing	–	county +/recreation/practice	county +/recreation/practice
Short mat bowls	–	recreation/practice	county +/recreation/practice
Short tennis	recreation/practice	recreation/practice	county +/recreation/practice
Unihoc	recreation/practice	recreation/practice	recreation/practice
Volleyball	–	–	–
Cricket – mats position	–	–	–
Basketball	mini	recreation/mini	recreation/practice

Source: Sport England



TIMOTHY SOAR

NOTLEY GREEN COUNTY PRIMARY SCHOOL, ALLFORD HALL MONAGHAN MORRIS
The hall is naturally-lit by steep rooflights. These are high enough to be safe when ball games are played and can be blacked out for performances. Additional lower-level lighting is set into the ceiling. Generous stores at the sides of the hall house equipment and chairs.

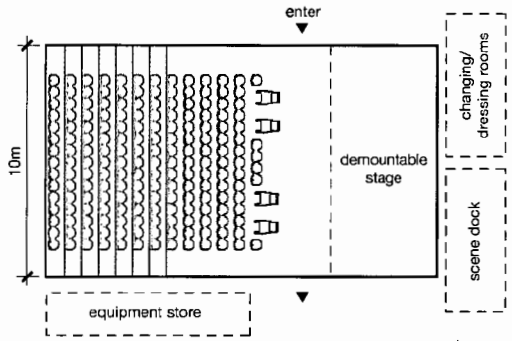
not required, creating an additional room.

A temporary stage is a more efficient and flexible solution and can be achieved using a variety of systems, such as portable modular blocks, which need a relatively small amount of space when not required. A simple retractable or demountable end stage is also an option and takes up only a small amount of floor space when stacked. If required, a proscenium arch can be formed using masking suspended from the lighting grid. Consideration should be given to costs, storage implications, management requirements, as well as to the types of performances to be staged, and the time and labour required to prepare the stage.

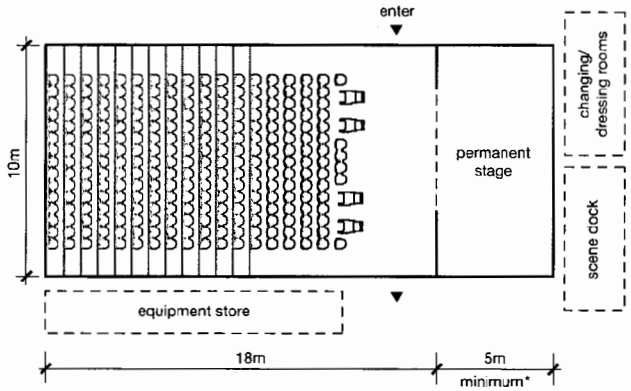
A stage depth of 5m is adequate for drama and small to medium scale music performances. A minimum of 9m by 9m is required for even small-scale dance productions. The suggested stage height is 300mm to 400mm, to allow children to sit at the edge of the stage during informal performances. The height of a standard proscenium arch is approximately three-quarters of its width, which is a minimum of 6.5m. Wing space should normally be at least 2m deep.

The stage finish is particularly important for dance, but this can be catered for using a dance mat which can be rolled up and stored when not required. As dance mats need time to acclimatise before use, it may be useful for the venue to have its own in storage.

The hall should have an area in which to deposit



1 BADMINTON COURT HALL – UP TO 190 SEATS



*For dance stage, depth needs to be increased to 9m

1 BADMINTON COURT HALL AND STAGE – UP TO 265 SEATS

Suggested layouts, including disabled seating, for two different staging solutions.

RIGHT: NOTLEY GREEN COUNTY PRIMARY SCHOOL, ALLFORD HALL MONAGHAN MORRIS
The hall can be extended by opening the doors onto an internal courtyard that can be used as a stage or an informal teaching area.

equipment, props, and costumes from an external delivery area. Doors should give direct access into the wing spaces or storage areas. These should be robust, sound proofed and large enough to allow hanging racks for costumes and sound and lighting equipment to be taken directly to the performance area.

Seating

Raked seating is essential to achieving good sightlines from the rear of a hall of the length suggested. A balance should be struck between the seating rake (which should not exceed 35°), a stage height compatible with pupil use, and horizontal and vertical sightlines. A detailed sightline analysis will cover the stage height, rake of seats, row depths and features such as transverse gangways. Other considerations are wheelchair and carer seating positions, access for disabled performers, and performer or audience access to the stage.

The cheapest and most effective way of providing flexible seating is with individual chairs that can be arranged on the level floor to suit different formats. These allow a variety of stagings and are useful for other community events. Chairs can be loaded onto trolleys and moved into storage when not required. A simple demountable platform can be used to raise some seats at the rear of the hall, but this arrangement will only improve sightlines marginally.

It may be more convenient and less time consuming to use retractable bleacher seating. Folding seats, padded for comfort, are most appropriate in a multi-purpose hall. Bleacher seating can be an electrically or manually operated system. Depending on the type of sprung floor, local strengthening may be required to support the retractable seat runners.

Changing rooms and dressing rooms

Changing rooms and dressing room requirements may be combined within single spaces, provided they are of adequate size and have appropriate fittings. However, there may need to be some compromise in the details described below.

For sports use, buildings with main and secondary halls require a minimum of between six and 12 changing spaces each for male and female players. Increased provision may be required if there are outdoor pitches. Where these are grass pitches, separate team-sized changing rooms should be provided.

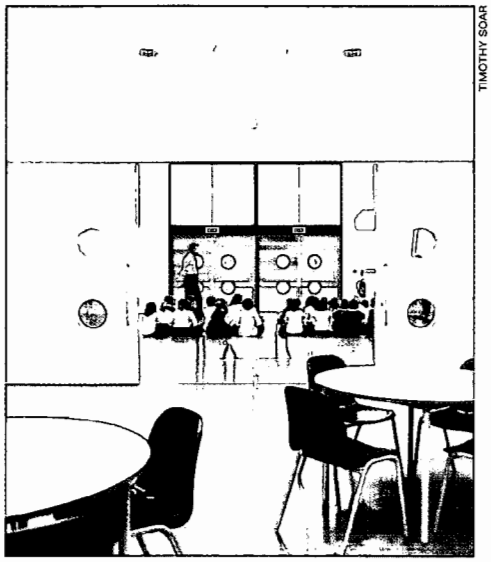
Changing rooms should be designed with 0.45m deep benches allowing 0.5m width per person, preferably cantilevered from walls to allow for floor cleaning. The minimum recommended plan dimensions are 2.5m benchback to benchback for opposed benches, or 1.5m benchback to wall face for single-bank benches. Screened entrances are essential and showers and drying off areas must be located at the far end of the changing rooms. There should be one shower for every six changing spaces for indoor sports, and one for three or four changing spaces for outdoor sports. Mechanical ventilation is essential for the showers. For more details, see Sport England Guidance Note, *Pavilions and Clubhouses* and *Sports Hall: Design*.

For arts use, the provision of dressing and changing facilities depends on the number of performers or players. Secure dressing rooms should be provided within easy reach of the performance area. The minimum space required is 2.5m² to 3m² per person, with separate areas for male and female changing. There should be provision for disabled performers.

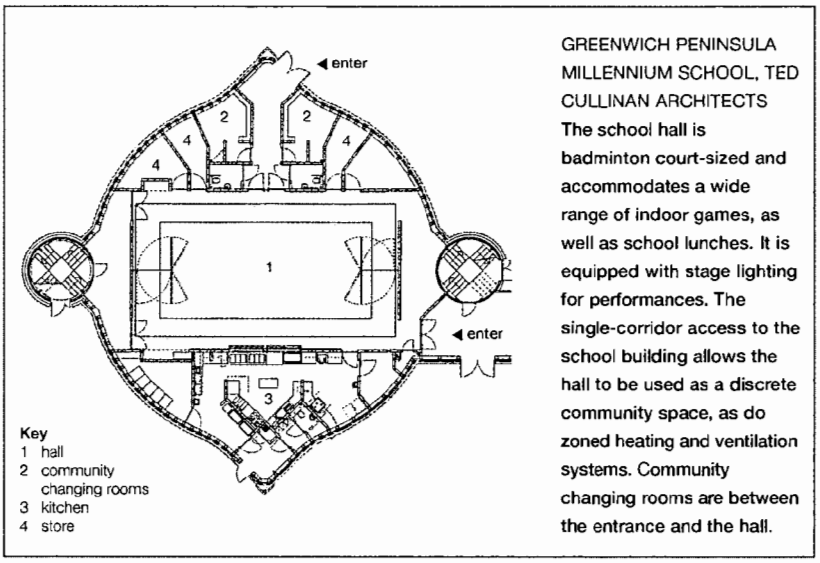
Dressing rooms for performers should include worktops and mirrors with appropriate lighting and power sockets, seats, space for personal belongings and hanging space for costumes. Show

JIM LOWE

PERTHCELYN COMMUNITY PRIMARY SCHOOL, RHONDDA CYNON TAFF PROPERTY CONSULTANCY
The hall is a rectangular space for regular use such as assemblies and dining. Modular blocks form a podium at the near end for assemblies but the folding doors at the far end of the hall can be opened to create space for a proscenium arch stage. The stage space is used as a music and drama room during normal school hours.



TIMOTHY SOAR



GREENWICH PENINSULA MILLENNIUM SCHOOL, TED CULLINAN ARCHITECTS
The school hall is badminton court-sized and accommodates a wide range of indoor games, as well as school lunches. It is equipped with stage lighting for performances. The single-corridor access to the school building allows the hall to be used as a discrete community space, as do zoned heating and ventilation systems. Community changing rooms are between the entrance and the hall.

relay and cue light systems are desirable. There should also be access to tea and coffee making facilities and to drinking water.

Space for performers to assemble between the dressing rooms and stage is useful. This could be a wide corridor (at least 1.5m wide), which will also facilitate disabled access into dressing rooms. Performers should have access to dedicated toilets and showers, with a minimum of one toilet and one shower for every 10 performers. One unisex toilet and shower cubicle should be provided for disabled performers.

Acoustics

Given the acoustic sensitivity of musical and dramatic performances, it is advisable to involve an acoustician at the outset of the project.

Speech and music require different reverberation times; ranging typically from 0.9 seconds for speech to between 1.1 and 1.3 seconds at mid frequencies for non-amplified music. To counteract the hard walls and surfaces required for sports use, some absorption will be required. A seated audience will itself absorb sound and further absorption can be introduced by drapes, or by acoustic panels with a hard, perforated surface either in the ceiling or in the upper walls.

External noise from traffic, rainfall, neighbouring accommodation and plant rooms should not exceed (typically) NR25 within the auditorium, NR35 in dressing rooms and foyer spaces, and NR40 in corridors and cloakrooms. This can be achieved principally by use of high mass construction. Window and door openings should be airtight and the junctions where services penetrate walls should be sealed. Piped services should be critically damped or encased, and ventilation ductwork should be attenuated. Plant should either be flexibly mounted or, ideally, totally isolated from performance spaces. Where sound-sensitive spaces adjoin sound-producing spaces, sound lobbies may be required.

Lighting

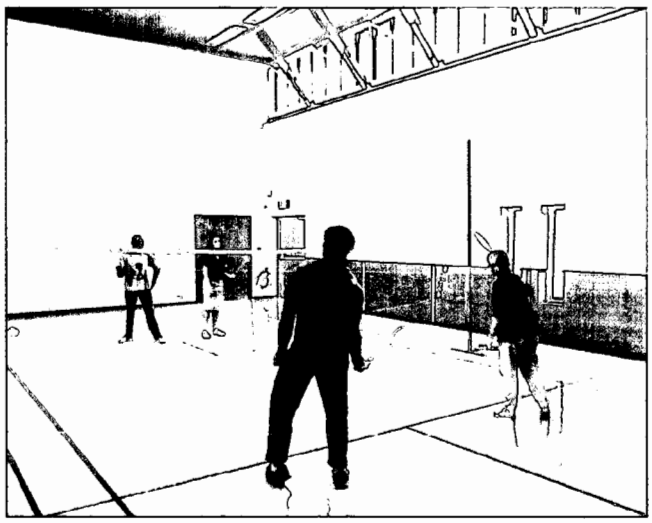
For sports use, the main hall requires a uniform lighting level of between 300 and 400 lux, best provided by compact fluorescent fittings ceiling-mounted outside the badminton court side lines.

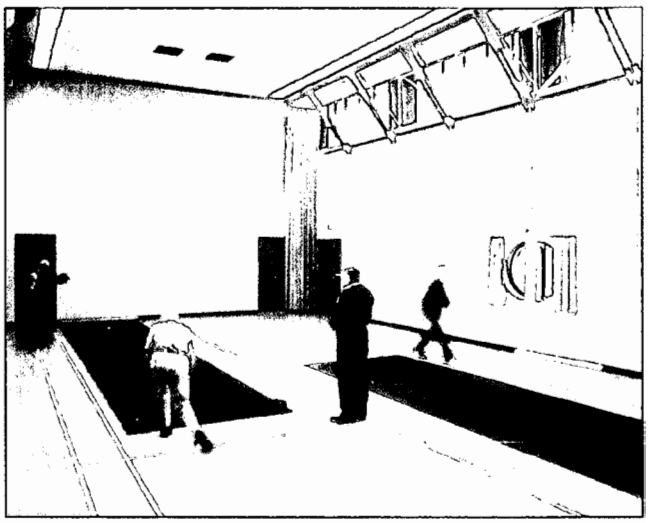
Lighting for a performance space comes under two categories – performance lighting and auditorium lighting. Performance lighting will require lighting bars or a lighting grid at a suggested minimum height of 6m above floor level. Further lighting bars may be required at high level along the side walls or at the rear of the hall. The means of access to both general lighting and the lighting bars or grid needs to be determined at an early stage.

For auditorium lighting the main hall should have a dimmable system supplemented by decorative lighting, such as recessed floor washers to illuminate steps and wall washers, or mini spots, to highlight architectural features. Light levels should be sufficient to allow the audience to move around the auditorium and read programmes. The main hall lighting must not be mounted over the stage area.

Heating and ventilation

For sports use, the hall should be maintained at a temperature ranging from 12 to 20°C and 1.5 to 3 air changes per hour should be provided. Performances require silent heating and ventilation systems that can provide a wide, even distribution of air, without draughts or dead air pockets, maintaining the temperature in the audience area at a consistent 21°C. Supply and return fans should operate together to achieve a balanced system, with fan speed controllers to vary ventilation rates in response to occupancy levels.





ABOVE LEFT:
VERDON STREET COMMUNITY RECREATION CENTRE
The flush walls have rebound panelling, while the side window and light fittings are outside the perimeter of the badminton court.

ABOVE RIGHT:
MARKFIELD COMMUNITY RECREATION CENTRE
Short mat or carpet bowls are a popular community activity. Three short bowls mats can be fitted in a one badminton court-sized hall. Mats are stored on rollers.

Because of the potentially conflicting environmental requirements of the multi-use space, it is advisable to engage a mechanical and electrical consultant at an early stage to advise on appropriate systems and controls, as these can have a considerable impact on design. Preliminary guidance is available from the Chartered Institute of Building Services Engineers.

Details and finishes

An impact energy-absorbing floor (as stipulated by BS 7044) is an essential requirement for sports and will provide a safe surface for dance practice and children's play. This is achieved by laying the selected floor finish and its support over battens on a foam underlay. Floor finishes should be specified to withstand games practice with soft balls only. Solid hardwood, hardwood laminated or linoleum on plywood can meet these requirements, but the effect of moving a heavy object such as a piano across the floor needs to be taken into account when determining the finish. The surface should be durable and warm and provide some slip for sports and fitness exercises, but should not be hazardous when wet from food or drinks spillage. Badminton court lines are normally the only permanent markings. They are also appropriate for short tennis. For more details see Sport England Guidance Note, *Floors for Indoor Sports*.

Walls and windows

Walls should be flush-faced and impact-resistant. Plastered or fair-faced masonry walls or dense particleboard linings are suitable options and the slightly rougher surface of a fair-faced wall will assist acoustic diffusion. Structural framing projections, wall bars and other perimeter intrusions should be avoided as they can cause accidents.

Internal walls separating the hall from other adjacent rooms should generally be of high-mass construction to reduce noise transfer.

Doors and low-level windows should be specified with safety in mind. Doors should generally open outwards and internal doors between main spaces require vision panels that are of a height and size appropriate to all users. Door frames and door leaves should be flush with the wall or should have splayed reveals to minimise the risk of injury. Fire escape doors should have recessed panic bars or flush-mounted push pads for the same reason. Fire extinguishers, sensors and other equipment should either be recessed or located in corners to minimise obstruction and possible damage.

End glazing should be avoided, as it is a source of excessive glare and will also compromise end-stage performances. High-level side windows provide an ideal source of evenly-distributed natural lighting. For performances or films, they can be blacked out with blinds, drapes or shutters, operated either electrically or manually using pull cords or cables.

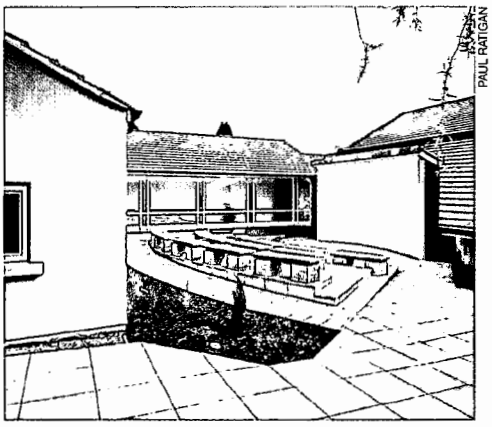
Low-level glazing must be made safe when the hall is used for sports, which may entail fitting foldback panels. All low-level glazing in windows and doors must use safety glazing. Curtains, drapes or shutters should be fitted to all external openings to provide blackout for videos and films, performances or discos.

Surface finishes and colours for walls and ceilings need to be carefully selected to strike a balance between the needs of sports and arts. Colours should be light enough to create a bright interior, but not so light as to require frequent redecoration. For performance, surface finishes should be chosen on the basis that they will not reflect light excessively from stage lighting and are not too assertive in colour, texture and contrast. A suggested optimum reflectance value of 50% will help minimise contrast while allowing sufficient light to be reflected from high-level or other glazing.

04 Arts facilities

Designing specialist spaces for arts use

Additional facilities for certain arts activities may be included to allow a wider variety of uses by both the school and the community.


PAUL RATIGAN

BURTON BOROUGH STUDIOS, MCMORRAN AND GATEHOUSE ARCHITECTS
An exterior performance space has been created in the courtyard between the buildings. The area has raked benches and the back wall is designed as a projection surface.

Film and video projection

Halls can be used for film and video screenings, for which they need fully-wired and sound-proofed projection rooms of around 12m² to 15m² at one end (with an alternative means of escape). The necessary equipment includes a 16mm film projector, a video projector, a screen (static or moveable) and speakers. It should be possible to operate the public address system and lighting from the projection room. Showing 16mm films is more simple than 35mm films, which have additional legal requirements that require discussion with the British Film Institute.

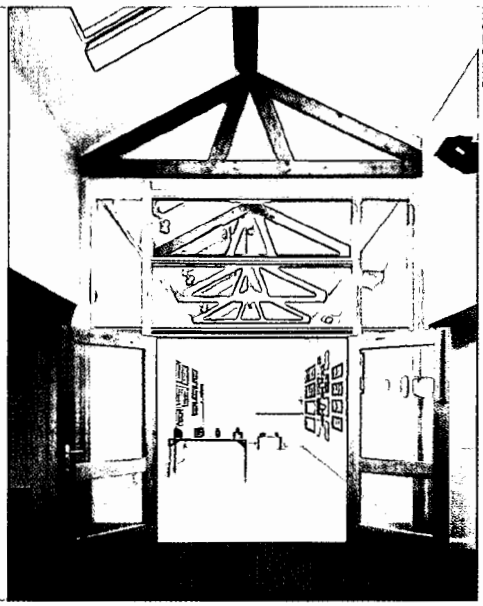
Music practice rooms

The principles of acoustic separation set out in section three should also be applied to music practice rooms. They should be acoustically separated from one another and from surrounding spaces by sound lobbies.

The volume and shape of the room itself must be considered. Parallel and identically-dimensioned walls create standing waves and flutter echoes, which reduce sound clarity. Ideally, at least one wall should be angled to avoid this. Alternatively one wall may be fitted with some absorptive material to reduce the sound reflected off it.

Room sizes will be dictated by the number of people expected to use a room and the instruments that are to be played. A room of between 6m² and 8m² will accommodate an upright piano and allow enough space for three people to play together. However, with louder instruments, such as brass and drums, a room of this size, and of an average height, would have insufficient volume, resulting in intolerable sound levels.

A larger room of between 20m² and 25m², with a proportionally higher ceiling, provides better acoustic conditions for louder instruments or amplified music and will accommodate a medium-sized ensemble of between 12 and 14 people.


PAUL RATIGAN

BURTON BOROUGH STUDIOS, MCMORRAN AND GATEHOUSE ARCHITECTS
The foyer has an office on one side and a gallery on the other. The office doubles as a reception desk and ticket office. The gallery (pictured) is very simple with pinboard walls for displays. It is large enough to be used for receptions and is also used for meetings. The floor is easily cleanable and there is a small washdown room for the pots and brushes used for visual and applied arts.

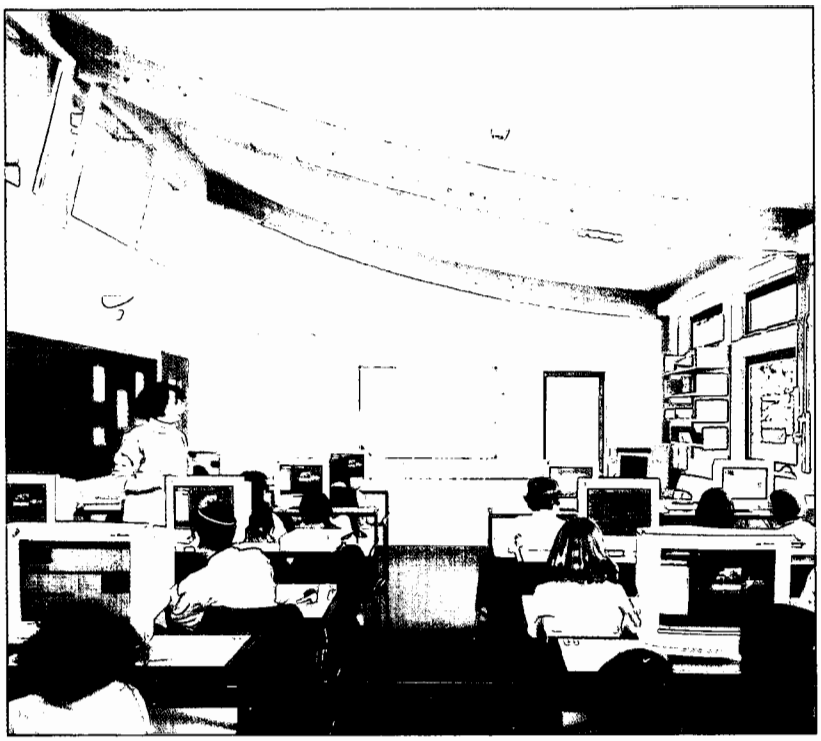
Visual and applied arts

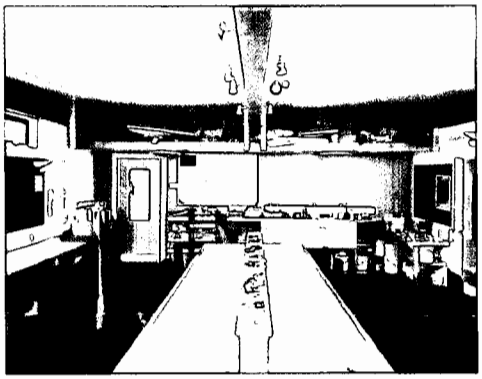
Spaces for visual and applied arts to accommodate classes and workshops should allow between 3m² and 4m² per person. They should be lit by natural daylight, preferably from the north. Artificial lighting should be glare free and it should also be possible to black out the room. Wet areas should have Belfast sinks and drainers, and floors need to be anti-slip and chemical resistant. There should be some display facilities. Windows should be secure and there should be lockable storage for equipment.

Specialist activities such as printmaking will require an extra 0.5m² per person for the storage of materials. Pottery workshops require a kiln room of

RIGHT: SIMON MARKS JEWISH PRIMARY SCHOOL, CAZENOVE ARCHITECTS
This multi-media space has been designed to comply with standards for VDU use.

BELOW: **The art room has natural daylight and plenty of display facilities along the walls.**





6m² with a minimum clearance area around the kiln of 450mm on at least two walls and 1000mm for the operator. The space should be fitted with appropriate ventilation. A special cupboard and space for a potter's wheel (with a clearance of at least 600mm from nearby walls and 850mm for the operator) should also be planned for. For photography a darkroom is required, preferably with a blackout lobby between workshop and darkroom.

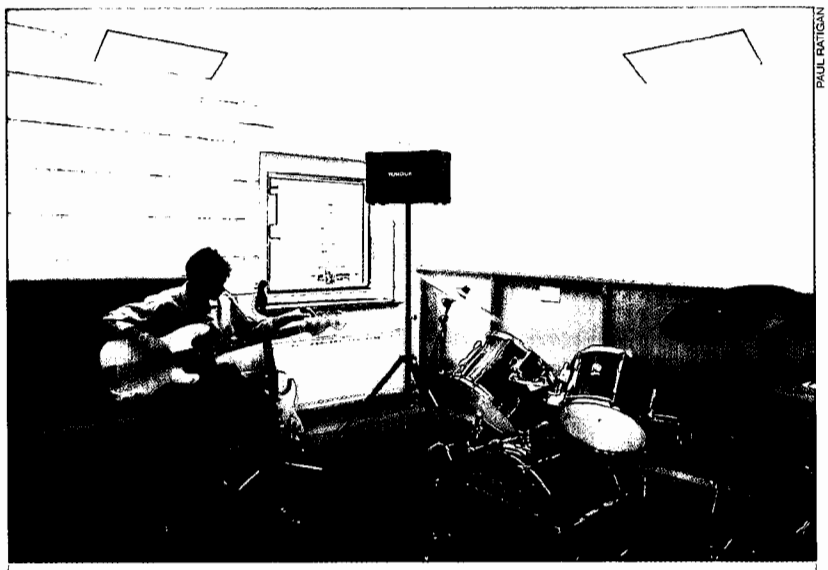
Spaces for multi-media

The space required for a multi-media area will depend on what it is to be used for. A suggested minimum area for computer workstations, with no specialist editing space, is between 5m² and 6m² per person. This allows for perimeter computer workstations with an adjacent work surface, a central table where users can develop and share ideas and sufficient circulation for training purposes. One A3 colour printer and one A3 black and white printer should be allowed for every six users.

The space must be designed according to standards on VDU use with user-controlled, VDU-compatible artificial lighting and natural lighting, with blinds for either partial or total blackout. A cable management system for telephone lines and multiple power outlets is necessary to prevent trailing leads. Network links to other school spaces are useful to allow for remote demonstrations. There should be a high level of security and secure stores should be provided for smaller items such as digital cameras and ink cartridges.

Exhibition space

Exhibition spaces which present touring work should have ancillary workshop spaces for storage, packing and framing, an external delivery dock and allow access for works up to 2.5m high and 2m wide. Screens, blackout screens and walls should be either self-repairing or easily painted over. Modular screens and plinths are useful for display.



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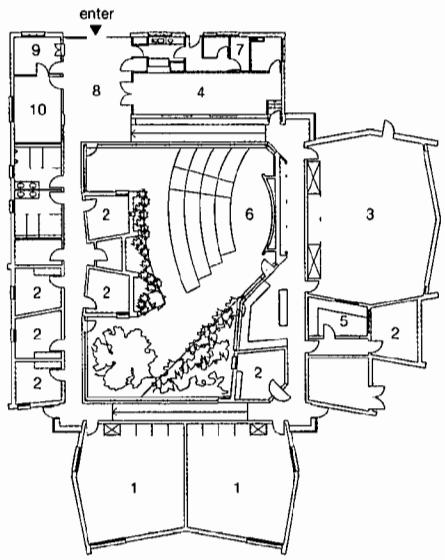


ABOVE AND LEFT: BURTON BOROUGH STUDIOS, MCMORRAN AND GATEHOUSE ARCHITECTS
The practice rooms are all irregular quadrilaterals to reduce flutter echoes. The ceiling tiles are porous with good acoustic properties and allow air to filter through from the corridor. There are some low-level acoustic panels and walls have drapes to reduce reverberation. For acoustic separation the buildings have all been separately expressed.

Key
1 studio/classrooms
2 practice rooms
3 rehearsal hall
4 art gallery
5 recording room
6 amphitheatre
7 visiting artists' flat
8 foyer
9 office
10 meeting room

05 Other dual use spaces

Designing to enhance and facilitate use

Service spaces support and supplement the key areas, opening up options for school and community use of the hall and enhancing the quality of experience for all users.

Small hall

A small hall of at least 10m by 10m by 3.5m high can accommodate such activities as martial arts, aerobics, boxing and table tennis. This size of space can also be useful for small-scale community uses such as clinics and luncheon clubs.

Functional requirements are similar to those of the main hall, again with an emphasis on safe design. Efficient ventilation in such spaces is very important and any low-level lighting must be flush-faced and have a safe surface temperature. A 3.5m height should be maintained over the central part of the room and should incorporate acoustic treatment. This size of room can also accommodate choir practices, poetry readings and large ensemble music practice.

Meeting and club rooms

If possible, include at least one meeting room. A main hall with supplementary rooms offers far more flexibility than one sub-divisible main space.

Foyer

Before a game or performance, the experience of arriving at the building, meeting friends, having refreshments and the journey from foyer to the hall is an integral part of the event. Sufficient space, clear orientation and circulation routes, signage and ready access from the entrance foyer to other facilities, such as toilets and refreshment areas, are essential to the success of a design. As a comfortable informal meeting space the foyer could be a good place for displays and could double as a gallery for art and craft work by pupils and local artists.

Current good practice suggests a minimum foyer area of 0.6m² per audience seat for arts use (around 110m² for a 180m² hall). However, this may prove excessive for a primary school which might only host small-scale productions. It may be more realistic to plan for a foyer of around 25% of the total area of the main hall and any other function areas (45m² for a 180m² main hall).

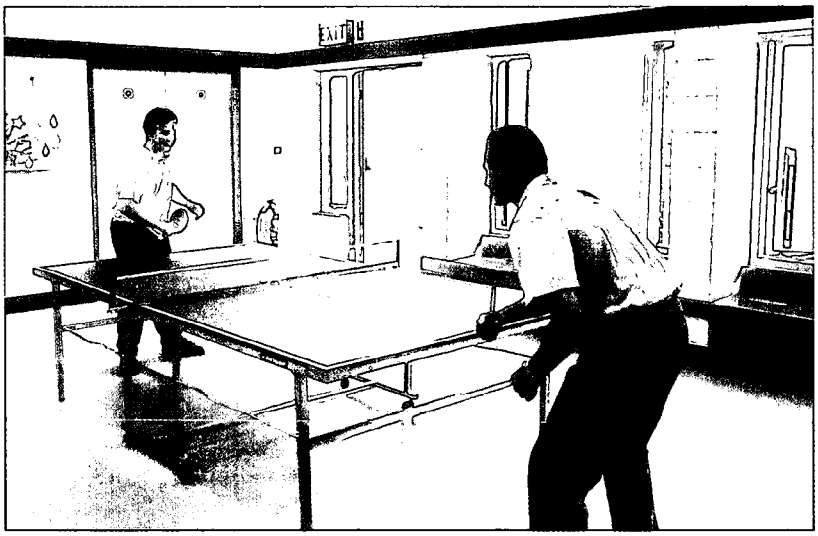
The reception should be sited to overlook the building approach and entrance for security. It could also act as a draft lobby floored with barrier matting and must allow unimpeded access for wheelchairs.

Offices

An office may be included as a base for staff, a reception and bookings point, a records store and a

MARTINE HAMILTON-KNIGHT

GAINSBOROUGH ADVENTURE PLAYGROUND, GROUNDWORK ARCHITECTS
The small hall for children's play has doors at one end which open to give the extra length necessary to play bowls. The clerestory roof brings in light at the top of the hall and the roof trusses have been left exposed adding an element of interest to the very simple roof. An office and meeting rooms are grouped around the hall.



ABOVE: VERDON STREET COMMUNITY RECREATION CENTRE
This 9m by 9m hall takes two table tennis tables. It is also ideal for keep fit classes and for martial arts as well as social and arts use.

JIM LOWE

RIGHT: PERTHCELYN COMMUNITY PRIMARY SCHOOL, RHONDDA CYNON TAFF PROPERTY CONSULTANCY
Community offices are arranged along a gallery corridor so they are separate from the main body of the school, whilst connected to it both visually and aurally.

location for the master heating and lighting controls and the fire alarm board. A reception desk backed by storage cupboards may be sufficient and could be located by the main entrance to overlook the building approach, foyer and main circulation areas.

Any other community offices should be near the school entrance to limit disruption to the main school during the day and to allow access when required at other times. Design should follow standard guidance for offices.

Multi-games areas

An external multi-games area can greatly extend the scope for sports activities and will also take the more physical sports outside the building. A fenced, all-weather play area about the size of a tennis court (approximately 35m by 20m) is ideal. It should be linked to the changing rooms exit by a paved route suitable for wheelchairs and would benefit from floodlighting.

If a new play area is to be built it should be securely fenced and safely surfaced, preferably on the south side of the building. Some sun shading should be incorporated in the design. Safe detailing is especially important around doors and other thresholds. It should not be possible to open doors and windows into the path of children and players. For more details see Sport England Guidance Note, *Multi-use Games Areas*.

Toilets

All toilets should be close to the entrance foyer and the need for adjoining cloakroom space should be considered.

There must be at least one toilet for wheelchair users. Where it is possible to combine the unisex toilet provision with accessible unisex changing space then the room should be increased to 2.5m by 2.0m and incorporate an integral shower and changing bench. The door must open outward.

Additional children's toilets may be needed for playgroups and nappy-changing facilities should be included in an adult toilet of increased size.

Kitchen and serving spaces

A kitchen should be located to serve the main hall and at least one other public space. Where possible, position the kitchen on an external wall. The model is a large domestic kitchen, and equipment should include a four-ring cooker, a double sink, a separate wash basin, a fridge, a freezer, a microwave oven and possibly a waste disposal unit.

There should be enough space for several volunteers to work together. The height of fittings should suit helpers in wheelchairs. Serving hatches should have inward opening fold-back doors and an uninterrupted surface to prevent spillage. Easily cleaned surfaces should be chosen. The floor should have a non-slip finish. If the kitchen is to double as a temporary bar, robust low-level shelving beneath the counter is necessary. A built-in sink and drainer are useful to back up any temporary bar installations. Kitchens require mechanical air extraction and direct access to refuse bins.

Kitchens and bars can provide a useful income, helping towards paying the running costs of the building. However, the establishment of a bar also has licensing and security implications. Licence terms can impose conditions relating to public and fire safety that are more easily met if they are considered early in the design stage.

Stores

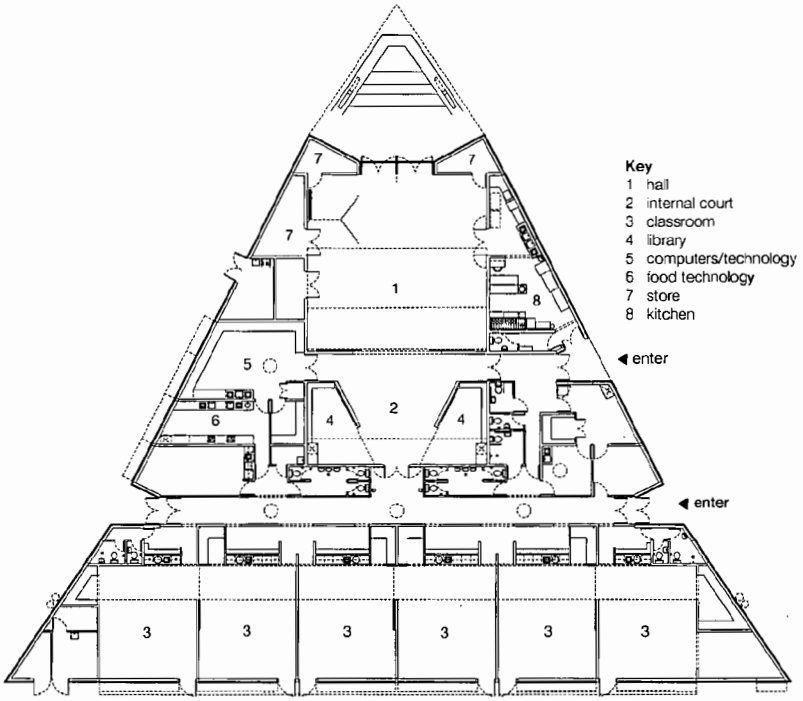
Each multi-purpose room requires storage for equipment and furniture (for equipment lists see table 5.2). Locate equipment and furniture stores so that they are directly accessible to the spaces they serve. Stores are usually open-plan, fitted with

TABLE 5.1: TOILET PROVISION

FEMALE PROVISION
2 WCs for up to 50 people
3 WCs for up to 100 people
1 WC for each additional 40 people
1 washbasin plus 1 per 2 WCs
MALE PROVISION
1 WC for up to 50 people
1 WC for each additional 500 people
2 urinals for up to 100 people
1 washbasin per WC + 1 per 5 urinals

Source: British Standard 6465: Part 1

WILLOW TREE PRIMARY SCHOOL, UNICORN CONSULTING SERVICES
This atrium brings light into the building and is also used as an informal meeting area.



NOTLEY GREEN COUNTY PRIMARY SCHOOL, ALLFORD HALL MONAGHAN MORRIS
The reception leads into the internal court which is used for meetings and for circulation as well as doubling as a stage for the hall. The library, technology spaces and food technology room are an integral part of the school yet can all be neatly separated off from the classrooms for community use.

shelving but they could include secure compartments for clubs' equipment. Existing storage provision will need to be increased for adult-sized equipment and furniture.

Storage for different areas

- Main hall. Generous storage is essential in the main hall for a full range of activities. The minimum storage area for a 180m² hall is 45m² and more space may be required for stage props and other equipment. Doorways must be wide enough to transfer the largest items. Space will be used more efficiently if the store is marked out for larger items of equipment.
- Small hall. The minimum storage requirement is for 10% of the floor area. Space can be saved and duplication avoided by having a communal storage space for the main hall and the small hall.
- Music practice rooms. Secure storage for reference material, scores, music stands and possibly instruments will be required nearby. A general guide would be to allow 0.5m² for each of the maximum number of people accommodated within the practice room.
- Foyer. Allow storage space for push chairs and coats close to the main entrance.
- External play areas. An external equipment store can be incorporated within the buildings where it will be more secure and less obtrusive.
- Kitchen. Fitted low- and high-level units, some lockable, should be sufficient.
- Bar. A permanent bar requires its own secure store with cold-water service and wash-down facilities.
- Meeting and club rooms. A store should be provided either in or close to the room. Additional separate secure stores are an advantage for other regular user groups.

TABLE 5.2: EQUIPMENT THAT MAY NEED TO BE STORED

GENERAL USE
Folding tables for banquets, displays
150+ stacking chairs and trolleys (depending on method of seating)
Equipment for individual groups
SPORTS USE
Net and posts for badminton, short tennis
Crash mats for floor gymnastics, judo and martial arts[1]
Three or four tables for table tennis
Two or three roll-out carpets, mats and fenders for short mat bowls
Small items of sports equipment
ARTS USE
Modular stage blocks for de-mountable stage
Props and curtains for drama
Piano or electronic keyboard
Wooden musical instruments[2]
Mats for dance[1]
Microphones and stands
Stage lighting
Film and video projectors
Cables
Portable mixing decks
Sound equipment and loud speakers
Drapes
Television and video
Small items of drama equipment including props

Note: 1 Should be stored in separate one-hour fire-rated enclosure vented to theexternal air and equipped with a smoke detection system.
2 Should be stored in a temperature- and humidity-controlled area.

06 Practical considerations

Addressing everyday issues and estimating costs

The design of a new school building must take into account environmental and health and safety issues and the effect sports and arts specifications will have on costs.

Security

While community use of school premises can be expected to have a positive impact on school security generally, there are issues which need to be considered when premises are being used outside of normal school hours. These include access control issues, which were discussed earlier on page five.

Facilities should be zoned, allowing the school use only areas to be locked and secured separately from the rest of the buildings when not occupied. Security systems such as intruder alarms, fire alarms and possibly CCTV installations can also be zoned according to which areas are in use after school hours. There should be secure storage for money, valuable items and expensive equipment. Doors, windows and rooflights may require additional protection or upgrading. Some of the most effective means of protecting buildings can also be forbidding in appearance and may therefore discourage people from wanting to use the facilities. A balance between openness and security needs to be struck (see Managing School Facilities Guide 4, *Improving Security*).

Because premises will be used regularly outside of daylight hours, the provision of external lighting will need to be much more extensive than it would be for school use only. Paths, roads and entrances will require a good standard of lighting. Car parking areas may require security lighting to discourage theft.

Access for disabled people

The building and site should be fully accessible on all levels. There should be one entrance arrangement for all users and, if the site allows, disabled parking spaces should be provided near the entrance with a covered drop off point if possible. Access to the auditorium and to the stage must be provided. Attention must be given to circulation routes, in particular lobby arrangements and minimising the number of doors. Contrasting colours, textures and signage should be used to assist people with visual impairment. Induction loops or infra-red hearing aids must be installed in performance spaces, meeting rooms and at reception desks. Mini-com facilities should also be provided. (refer to *What the Disability Discrimination Act 1995 means for Schools and LEAs*, DfEE Building Bulletin 91, *Access for Disabled People to School Buildings* and Arts Council of England access good practice guidance material).

Environmental issues

Heating

Main hall heat sources need to be visually unobtrusive and capable of producing comfortable conditions in a relatively high space. Effective solutions include under-floor heating systems, ducted warm air and recessed radiant panels above door height.

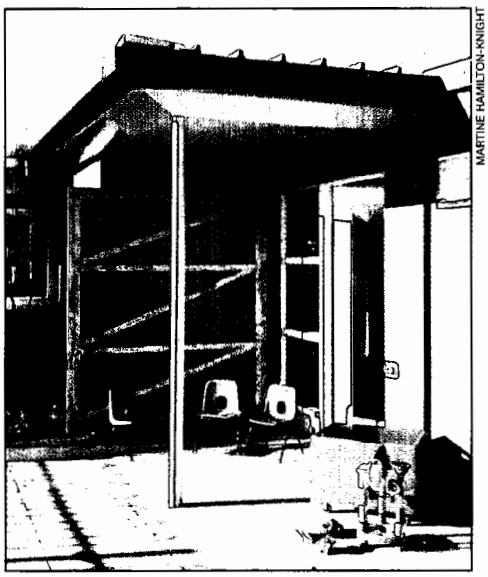
Community areas should be zoned and metered separately for economy and to allow costs to be monitored. Pipe circuits in buildings with a central boiler should be grouped together in compatible zones. Master controls should be in a secure place by the final exit from the building. Whatever form of heating is used it is essential to have high levels of insulation and a well-sealed building envelope. There should be a draught lobby at the entrance.

Lighting

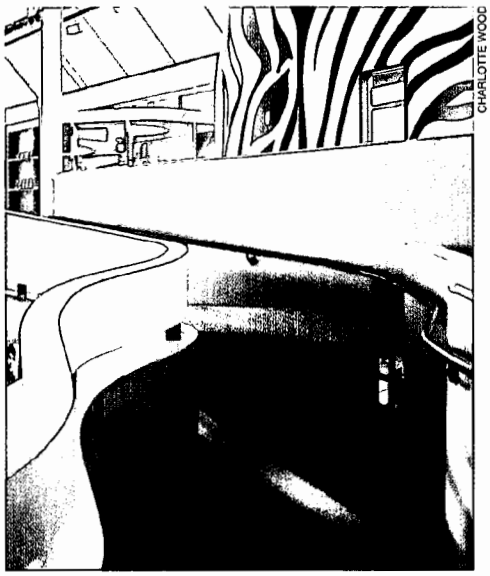
The lighting of halls has already been covered on page 11. For other spaces, sufficient switching is advisable for economy, so that only those lights which are needed are used. A presence detection system is a valuable aid to economy if it covers all primary light sources. A timer clock or sensor control will be required for external illumination. Emergency lighting must be installed in accordance with BS 5266 and to meet Building Control requirements.

Ventilation

Windows should be positioned to provide efficient ventilation, balanced with adequate security. The benefits of controlled cross-ventilation throughout the building should be considered. Natural ventilation should be used wherever possible but kitchens, toilets, changing rooms and showers all require mechanical extraction. Changing rooms, showers and kitchen should have humidistat switching to ensure proper ventilation. If noise spillage through open windows is likely to be a problem, fans and ductwork may have to be extended to the public areas.



MARTINE HAMILTON-KNIGHT



CHARLOTTE WOOD

FAR LEFT: GAINSBOROUGH ADVENTURE PLAYGROUND, GROUNDWORK ARCHITECTS
Shutters protect the building from vandalism and theft. The unwelcoming effect is offset by colourful finishes.

LEFT: POKESDOWN PRIMARY SCHOOL, FORMAT MILTON ARCHITECTS
Instead of providing separate lifts for disabled pupils and visitors the circulation of the two-level site is by ramps so everyone is able to move around together.

Power

Residual current circuit breakers should be specified for safety and guarded power sockets are required if pre-school children are likely to use a room, for example with playgroups. The placing of power sockets should take into account all of the space's possible uses.

Water

Individual water heaters or a multi-point heater can offer economies over stored hot water supplied from a central boiler for showers.

Protection

Lightning protection may be advisable in areas where the isolation and height of a building make it vulnerable to lightning strikes. Fire protection must meet the requirements of the Building Regulations (see also DfEE Managing School Facilities Guide 6, *Fire Safety*).

Furniture and equipment

Most furniture and equipment designed for young children will be inadequate for adults. Additional items for both sets of users should be specified. Adaptable-height furniture is likely to be practical for use by both adults and children. Lightweight, moveable furniture allows spaces to be rearranged quickly and easily. All furniture and equipment should meet relevant safety standards.

Health and safety

The basic occupational health and safety law in England is the Health and Safety at Work etc. Act 1974. This regards schools in the same way as other workplaces. There are additional health and safety issues in the context of letting of school premises.

The governing body, and other occupiers who have control over the premises may be liable for the state of the premises under the Occupiers Liability Acts 1957 and 1984. They should therefore check the premises are safe for the activities for which they are to be used and make clear that the premises should not be used for other purposes.

General costs

Table 6.1 provides indicative costs for common types of project. These costs exclude abnormals, external works, fees, VAT and furniture, fittings and equipment, whether built-in or loose. Actual costs may be higher in schemes with more specialised facilities.

These guide costs may be adjusted to reflect tender price movements by reference to the Department of Environment, Transport and the Regions' PUBSEC index. Adjustments for location and size may be made by reference to factors published by the Royal Institute of Chartered Surveyors' building cost information service.

An external multi-use games area of 39.5m by 27.5m in macadam would cost around £54,000. These costs include floodlighting and fencing, but exclude abnormals, fees, VAT and equipment.

Furniture and equipment costs also need to be covered, and these can be considerable. Using the example of a 180m² hall, performance equipment costs may total around £50,000.

TABLE 6.1: BUILDING GUIDE COSTS PER M² AT FIRST QUARTER 2000 PRICES

Construction of new primary school	£780/m²
Extensions to primary schools	£745/m²

references

Access for Disabled People to School Buildings DfEE Building Bulletin 91. The Stationery Office (1999). ISBN 0 11 271062X

Architectural Acoustics, M David Egan. McGraw-Hill Inc (1988). ISBN 0 07 019111 5

Area Guidelines for Schools DfEE Building Bulletin 82. The Stationery Office (1996). ISBN 0 11 270921 4

Buildings for Performing Arts – A Design & Development Guide, Ian Appleton. Butterworth Architecture (1996). ISBN 0 7506 1276 2

Car Park and Landscape Design Sport England Guidance Note. ISBN 1 86078 101 2 (Ref 886)

Community and Village Halls Sport England Guidance Note (forthcoming)

Dance Spaces, Mark Foley. The Arts Council of England (1994). ISBN 0 728 7 06865

Designing for 4 to 5 year olds, DfEE Publications (1999). ISBN 0 85522 986 1

Designing Galleries, Mike Sixsmith. Funded by the Lottery Departments of the Arts Councils of England, Northern Ireland, Wales and the Scottish Arts Council (1999). ISBN 0 7287 0780 2

Fire Safety DfEE Managing School Facilities Guide 6. Stationery Office (2000). ISBN 0 11 271040 9

Floors for Indoor Sports Sport England Guidance Note. ISBN 1 86078 098 9 (Ref 877)

Guidelines for Environmental Design in Schools DfEE Building Bulletin 87. The Stationery Office (1997). ISBN 0 11 271013 1

Improving Security in School DfEE Managing School Facilities Guide 4. Stationery Office (1996). ISBN 0 11 270916 8

Making Space for Theatre, Ronnie Mulryre and Margaret Shewring. Mulryre & Shewring Ltd (1995). ISBN 1 900065 00 2

Multi-use Games Areas Sport England Guidance Note. (1995). ISBN 1 872 158 87 (Ref 374)

Natural Turf for Sport. Sport England Guidance Note. ISBN 1 86078 103 9 (Ref 920)

Pavilions and Clubhouses Sport England Guidance Note. ISBN 860078 090 7 (Ref 798R)

Raising Standards: Opening Doors – Developing Links Between Schools and their Communities DfEE publications (1999)

School Grounds – A Guide to Good Practice Building Bulletin 85. Stationery Office (1997). ISBN 0 11 270990 7

Sports Halls: Design Sport England Guidance Note. ISBN 1 86078 094 6 (Ref 864)

Sports Halls: Sizes and Layouts Sport England Guidance Note (2000). ISBN 1 86078108X (Ref 980)

The Outdoor Classroom, 2nd edition DfEE Building Bulletin 72. The Stationery Office (1999). ISBN 0 11 2710611

Theatres – Planning Guidance for Design and Adaptation, Roderick Ham and ABTT. The Architectural Press (1987). ISBN 0 85139 418 3

What the Disability Discrimination Act 1995 means for Schools and LEAs DfEE Circular 3/97

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Website includes details of regional arts boards

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www.abtt.org.uk

Association of Noise Consultants
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Hertfordshire SG8 0JE
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www.association-of-noise-consultants.co.uk

British Film Institute
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Chartered Institute of Building Services Engineers
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www.cibse.org

Department for Culture, Media and Sport
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www.culture.gov.uk

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Health and Safety Executive
Caerphilly Business Park
Caerphilly
Mid Glamorgan CF83 3GG
Tel: 08701 545500
www.hse.gov.uk
Website includes guidance on a wide range of health and safety matters including how requirements based on EC directives fit with those under the Health & Safety at Work Act 1992 (Management Regulations) and on defining the obligations of employers under that Act

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London SW1H 9AT
Tel: 020 7273 4000
www.homeoffice.gov.uk
Website includes useful information on fire precautions and fire safety

Institute of Structural Engineers
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www.architecture.com
Website includes a national list of architectural practices and their specialisms

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Sport England
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www.english.sports.gov.uk
Website includes details of regional offices

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